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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/273,149	03/19/1999	KEVIN M. PINTAR	22074661-255	6715

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EXAMINER

PAULA, CESAR B

ART UNIT PAPER NUMBER

2178

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/273,149		PINTAR ET AL.	
	Examiner		Art Unit	
	CESAR B. PAULA		2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/4/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the RCE amendment filed on 10/4/2005.

This action is made Non-Final.

2. In the amendment, claims 16-17 have been canceled. Claims 1-15, and 18-20 are pending in the case. Claims 1, 8, and 15 are independent claims.

Information Disclosure Statement

3. The applicants have explained patent 6,085,203 is an English version of the EP 0 764 899 A1 application. Therefore, based upon this explanation, this application has been considered.

Drawings

4. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claims 8-15, and 18-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose: “determining whether the one or more data conversion routines should be generated as stand-alone routines or codes chunks based on the size determination”, and “determine whether the conversion routines should be generated as stand-alone routines or codes chunks based on the size determination” as recited in limitation d) of claim 8, and lines 14-15 of claim 15, as to enable one of ordinary skill in the art to make and use the determination of type of software generated based on the size of the code created.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. The rejections of claims 1-7, and 15, and 18-20 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, have been withdrawn as necessitated by the amendment.

9. The rejections of claims 8-14 remain under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 8, recites: “the one data type having an input attribute not being dependent on the another data types having

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an output attribute” (lines 7-9). This seems contradictory, because the claims basically teach the conversion of a first input data type(s) into an output data type(s) using conversion routine(s). Accordingly, if the input data type is being converted into an output data type, it follows that the conversion routine needs or depends on the input data type in order to perform the conversion. In other words, without the input data type there would be not output data type. The examiner could not find how the newly amended limitation is described in the specification.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-6, 8-12, 15, and 18-19 remain rejected under 35 U.S.C. 102(e) as being anticipated by Allen et al, hereinafter Allen (Pat.# 6,502,236, 12/31/2002, filed on 3/16/1999).

Regarding independent claim 1, Allen discloses the automatic generation by an application, such as a forwarding device, of a program based on a number of received input, and output format descriptors—*first, and second attributes--*, such as Ethernet, and IP formats—*input and output data types* (col. 2, lines 28-67, col. 10, lines 33-47).

Moreover, Allen teaches the automatic generation in real-time—*dynamically creating at runtime--* of a conversion program—*first optimized conversion routine--* such as an assembler program, based on the input, and output format descriptors. The conversion program or translator has methods—*computer instructions*—for interpreting format descriptors, and convert data units from a first to a second format through or during the interpretation or executing of these methods (col. 2, lines 28-67, and col.4, lines 51-65).

Furthermore, Allen teaches the compilation of a generated program translation objects by a fast compiler—*validating specific field conversion options of the conversion routine*, and the execution of the program, by a modification engine —*application--* to convert a received data unit to an output data unit described by the input, and output format descriptors, such as Ethernet, and IP formats, which are not dependent on or different from each other (col. 2, lines 28-38, 57-67, col.3, lines 54-67, col.4, lines 35-65, and col. 6, lines 1-67, fig.2).

Regarding claim 2, which depends on claim 1, Allen teaches the execution—*calling--* of the program—*first optimized routine--*, by an implementation of the forwarding device—*application--* to convert a received data unit to an output data unit described by the input, and output format descriptors, such as Ethernet, and IP formats, which are not dependent on or different from each other (col. 2, lines 20-38, 50-67, col.3, lines 49-67, and fig.2).

Regarding claim 3, which depends on claim 1, Allen teaches the execution of the program—*first optimized routine--*, by a modification engine—*application--*, for converting between the two formats, where the program executes from within the modification engine,

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which is part of the forwarding device system (fig.2) or is stored inline with the forwarding device application (col. 2, lines 20-38, 57-67, col.3, lines 40-42, 50-67).

Regarding claim 4, which depends on claim 1, Allen discloses the automatic generation in real time by an application—*step b performed dynamically while the application executes translation steps--*, such as a forwarding device, of a program based on a number of received input, and output format descriptors—*first, and second attributes--*, such as Ethernet, and IP formats (col. 2, lines 20-67, col. 3, lines 50-67, and col. 10, lines 33-47).

Regarding claim 5, which depends on claim 1, Allen discloses the automatic generation by an application, such as a forwarding device, of a program based on a number of received input, and output format descriptors, such as word objects 62, and 68—*third, and fourth attributes--*, such as Ethernet, and IP formats—*input and output data types* (col. 2, lines 28-67, col. 10, lines 33-47, and col. 6, lines 38-64,).

Moreover, Allen teaches the automatic generation in real-time—*dynamically creating at runtime--* of a new translator for each of the word objects—*second optimized conversion routine--* such as an assembler program, based on the input, and output format descriptors (col. 2, lines 28-67, and col.4, lines 51-65, and col. 6, lines 38-64).

Furthermore, Allen teaches the execution of the program, by a modification engine — *application--* to convert a received data unit to an output data unit described by the input, and output format descriptors, such as Ethernet, and IP formats, which are not dependent on or

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different from each other (col. 2, lines 28-38, 57-67, col.3, lines 54-67, and col. 6, lines 38-64 fig.2).

Regarding claim 6, which depends on claim 1, Allen discloses the automatic generation in real-time of a new translator for converting data types, such as alphabetic characters (col. 2, lines 28-67, and col.4, lines 16-65).

The following rejections are made based on the examiner's understanding of the previously added limitation (amendment filed on 4/19/2004) of the first output data type not being dependent on the first input data type. Since it was indicated above, that this limitation is contradictory, the examiner is interpreting the limitation as the input and output attributes being independent from each other or being different from each other.

Claim 8 is directed towards a method for implementing the steps found in claim 5, except for (c) *determining the size of the one or more computer instructions*; (d) *determining whether the one or more data conversion routines should be generated as stand-alone routines or code chunks based on the size determination*—taught by Allen's inclusion of conversion programs partly or in whole (col.10, lines 26-32). In other words, the size of the computer code is chosen. The size chosen is either a small portion of the program or entire conversion functions-- *stand-alone routines*.

Regarding claim 9, which depends on claim 8, Allen teaches the applying—*calling*-- of the translators 70, 72, 74—*plurality of conversion optimized routines*-- by an implementation of the forwarding device—*application*-- to convert a received data unit to an output data unit described by the input, and output format descriptors, such as Ethernet, and IP formats, which are not dependent on or different from each other (col. 2, lines 20-38, 50-67, col.3, lines 49-67, col. 6, lines 50-63, and fig.2).

Regarding claim 10, which depends on claim 8, Allen teaches the storage of the translators in the forwarding device system (fig.2) or is stored inline with the forwarding device application (col. 2, lines 20-38, 57-67, col.6, lines 29-50).

Regarding claim 11, which depends on claim 8, Allen discloses the automatic generation in real time by an application—*step c performed dynamically while the application executes translation steps*--, such as a forwarding device, of a program based on a number of received input, and output format descriptors—*first, and second attributes*--, such as Ethernet, and IP formats (col. 2, lines 20-67, col. 3, lines 50-67, col. 6, lines 29-63, and col. 10, lines 33-47).

Regarding claim 12, which depends on claim 8, Allen discloses the automatic generation in real-time of a new translator for converting data types, such as alphabetic characters (col. 2, lines 28-67, and col.4, lines 16-65).

Claims 15, and 18-19 are directed towards a computer system for implementing the steps found in claims 8, and 11-13 respectively, and are similarly rejected.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, and 14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, in view of DaSilva (Pat. # 6,493,868, 12/10/2002, provisional application filed on 11/2/1998).

Regarding claim 7, which depends on claim 1, Allen discloses the automatic generation in real-time of a new translator for converting data types, such as alphabetic characters (col. 2, lines 28-67, and col.4, lines 16-65). Allen fails to explicitly teach *generating program debugging instrumentation*. DaSilva discloses: allowing developers to visually probe, trace, and monitor DSP application's real time performance using breakpoints, probe points (col.2, lines 35-col.3, line 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to have debugged the routine, because Mcallum teaches above, the visual probing, tracing and monitoring DSP applications with minimal impact to the real time performance of the applications.

Claim 14 is directed towards a computer system for implementing the steps found in claim 7, and is similarly rejected.

14. Claim 13 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Allen.

Regarding claim 13, which depends on claim 8, Allen discloses the automatic generation in real-time of a new translator for converting data types, such as alphabetic characters (col. 2, lines 28-67, and col.4, lines 16-65). Allen fails to explicitly teach *said input and output attributes are date type*. It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the date type, because Allen teaches a system that is fast enough to handle new operational requirements as they are received (col.2, lines 15-24, 61-67), thus saving time.

Response to Arguments

15. Applicant's arguments filed on 10/4/2005 have been fully considered but they are not persuasive. Regarding claims 1, 8, and 15, the Applicants are directed to the rationale for the rejection of the newly added limitations, in light of Allen.

Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kunetsov et al. (Pat. # 6,772,413 B2), and Automated Code Checker, IBM TDB, 9/1993, vol.36, no.9B, pp.239-240.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The

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examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.


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Any response to this Action should be mailed to:
Commissioner for Patents
P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

- (571)-273-8300 (for all Formal communications intended for entry)


CESAR PAULA
PRIMARY EXAMINER
3/28/06